

## APPLIGATION NOTE

AN-134 Water Level Probe Replacement Instructions
SUPPLEMENT TO THE ELECTRONIC STEAM
POWER HUMIDIFIERS MODEL #S2000 AND S2020

## REPAIRS SHOULD BE PERFORMED BY A QUALIFIED TECHNICIAN

To replace the water level probe in the "S" series steam humidifier, you must *unplug and shut down your steam humidifier and allow it to cool.* The water tank must be drained, the water supply, drain lines and electrical wiring must be disconnected and the unit removed from the duct. Pull straight up on the Green terminal block to disconnect It from the unit.

## Place the unit on a flat working surface.

Using a phillips screwdriver, remove the two screws that hold the baffle plate to the tank. Lift the baffle slightly back to clear the water level probe and then straight up and out of the tank.

Unplug the automatic drain valve assembly from the side of the front cover. Snip the plastic wire tie that secures the drain valve wires to the main power cord. Now use an adjustable wrench at the brass "T" adapter to unscrew the entire drain valve assembly. **DO NOT** use the drain valve itself as leverage when removing or re-installing the drain valve assembly. Doing so will damage the drain valve and void the warranty.

Now use a phillips screwdriver and loosen the four screws securing the front cover and remove the front cover. You can now see the entire Water Level Probe.

Use a 5/16" nut driver to loosen the hex nut which secures the water level probe to the printed circuit board. Then pull the water level probe out of the plastic insulator just far enough to remove the second hex nut. Now you can *gently* pull the water level probe out and through the plastic insulator. Be careful not to damage the plastic insulator! Place a small dab of grease or Vaseline on the water level probe, to ease the water level probe out. Do the same on the new water level probe when re-inserting it. If the plastic insulator gets damaged, replace it. Otherwise, save the new plastic insulator for future use.

If the plastic insulator is damaged or, you want to replace it anyway, you must loosen and remove the ground screw at the top of the printed circuit board. This allows some play between the circuit board and the plastic insulator. Use pliers and pull the old plastic insulator out. Place a bead of clear RTV silicon around the square portion of the plastic insulator (between the sealing flanges). Position the plastic insulator at the square hole in the humidifier and using pliers and a side to side motion, *gently* pull the plastic insulator through the hole until the outside flange pops completely through.

Insert the new water level probe into the plastic insulator using a dab of grease to ease it in. Wrap the small cable tie around the plastic insulator and pull tight. Cut off the excess length. Screw one hex nut onto the water level probe until about 1/4" of the threads are exposed. Re-install the ground screw removed earlier and secure the circuit board.

Push the water level probe up to and through the hole in the circuit board. Re-install the last hex nut and tighten down firmly while holding the water level probe leg straight down towards the bottom of the tank. Loosen the hex nut and re-adjust if necessary.

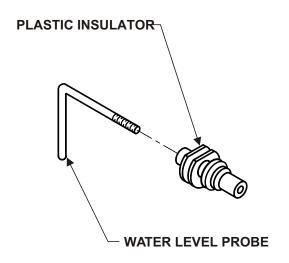
Now you can re-install the front cover. Make sure to line up with the LED's on the printed circuit board. Do not crush them when pushing the front cover back on. You may have to loosen the front cover screws a bit more. Press the front cover back on all the way and tighten the four front cover screws.

Re-install the baffle plate and secure with the two phillips screws.

Apply Teflon tape to the threads of the "T" adapter on the automatic drain valve. Screw the entire drain valve assembly back onto the drain fitting and tighten with an adjustable wrench. *DO NOT* use the solenoid valve itself as leverage to turn and tighten the assembly. Doing so will damage the valve. Tighten and position the drain assembly to the original position. Plug the drain valve molded connector back in on the side of the front cover until it snaps into place. Secure the drain valve wires with the short cable tie.

## Review the entire project to be sure that nothing has been overlooked.

Now insert the unit back into the duct and secure it. Re-connect the water, electrical and drain connections. Open the water source valve and plug the steam humidifier into it's electrical outlet. Make sure the humidistat is calling for humidity. Observe the operation of the unit and make sure there are no water leaks.



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